



Ashland Industrial Services
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100% FINAL ELEVATOR STUDY

FOR

**HOWARD T. MARKEY
FEDERAL BUILDING DC0094ZZ
TAYLOE HOUSE DC0112ZZ
COSMOS CLUB DC0113ZZ
717 MADISON PLACE, NW
WASHINGTON, DC 20005**

December 30, 2016

SCOPE OF WORK

Ashland surveyed ten (10) elevators at the referenced property during the week of October 24, 2016. The purpose of the audit and systems analysis is to develop scopes, cost estimates, time schedules, phasing for the interim repair projects and plan for the modernization projects. Ashland also identifies the primary equipment, determines the maintained condition of major components, records operating performance levels and evaluates the vertical transportation based on applicable industry and code standards.

Our report is arranged in sections as follows:

EXECUTIVE SUMMARY	Page 3
SECTION I - EQUIPMENT EVALUATION	
- Vertical Transportation Systems Profile.....	Page 6
- Life Cycle Analysis	Page 8
- Codes and Standards Review.....	Page 13
- Americans with Disabilities Act Compliance Survey	Page 14
SECTION II - MAINTAINED CONDITION EVALUATION	
- Itemized Deficiencies	Page 20
- Maintenance Contract Review.....	Page 22
- Recorded Operating Performance.....	Page 23
SECTION III - SCOPE, BUDGET COSTS & PRIORITIES	
- PE1 through PE4.....	Page 29
- PE5 & PE6	Page 29
- FE7	Page 30
- PE8	Page 30
- PE7 & PE8.....	Page 31
SECTION IV – PHOTOGRAPHS & KEY PLAN	
- Photographs	Attachment A
- Schedule	Attachment B
- Key plan.....	Attachment C

EXECUTIVE SUMMARY

In the main courthouse building the elevator equipment (PE1 – PE4 & PE5 – PE6) was manufactured and installed by Otis Elevator Company in 1964. The elevator system was modernized in 1994 by Armor/KONE with TMS-600 controllers and is **OBSOLETE** by design with spare parts that consist of only rebuilt components. Technical support is also limited to the electrical prints that were found in the machine room. Scarcity of spare replacement parts could lead to elevator downtime for weeks if not months.

The freight elevator (FE7) in the main courthouse was also installed by Otis Elevator Company in 1964 and is original as installed. The Otis relay elevator controller and valve are **OBSOLETE** and require complete replacement. Safety concerns with the single bottom jack have been addressed but we recommend a more long term correction in lieu of the life jacket. Although the lifejacket addresses the safety concerns in the event of jack failure down time could exceed 3 months.

The hydraulic passenger elevators located in the Library (PE8) and Tayloe House (PE8) also have elevator controllers that are **OBSOLETE** due to age and today's design standards. Technical support is limited and replacement parts are very hard to find which could lead to extended out of service time for weeks or maybe even months. Modernization of these control systems will improve safety and reliability of the equipment.

The Howard T. Markey Federal Courthouse building is located at 717 Madison Place, NW, Washington, DC, 20005. It is a government owned building. It is currently occupied entirely by the Federal Appeals Court. General Services Administration (GSA) is responsible for the operations and maintenance of the building. The Markey Courts Building has an area of 261,434 Gross SF, 198,218 Rentable SF and 151,403_ Usable SF. The main building has eleven (11) levels. These are 2B and 1B (parking levels) and floors 1 through 9. The building was built in 1964 and was designated as one of the modern era historic buildings. The Tayloe House has an area of 12,551 Gross SF, 9,532 Rentable SF and 4,436 Usable SF. The Cosmos Club has an area of 14,971 Gross SF, 10,988 Rentable SF and 7,994 Usable SF.

Ashland Industrial Services performed a comprehensive survey of the elevator equipment at the referenced property during the week of October 24, 2016. The main courthouse building's vertical transportation is provided by a four (4) car passenger group (PE1 – PE4) and a two (2) car duplex group (PE5 – PE6). These units were modernized in 1994 with Armor/KONE TMS-600 microprocessor elevator controls, operate at 400 feet per minute and serve eleven (11) front openings, respectively.

Realizing that preventive maintenance is an ongoing process, Ashland's survey represents a snap shot on a specific day and time. Overall, the equipment is in good condition with evidence of preventive maintenance being performed on a sporadic basis. The machine room spaces are relatively clean and the areas are organized. The deficiencies found can be addressed during regular preventive maintenance procedures such as hoistway door adjustments and replacement of incandescent light bulbs.

Of particular concern is that Ashland also found no paperwork in each elevator machine room of the hydraulic elevators PE7 (Freight), PE7 (Cosmos Club) and PE8 (Tayloe House) that illustrates that the safety tests have been completed, as required by ASME A17.1 Code. Verification that these tests have been completed needs to be done or schedule the tests to be completed as soon as possible. Record keeping of maintenance procedures and fireman's service monthly testing is not current or in some cases completely missing.

The Cosmos Club elevator (PE7) underwent a complete modernization in 2014 and is in very good condition. Cab interior finishes have been updated recently for the passenger elevators in the main courthouse building but the elevator cab interiors in the Tayloe House (PE8), Library (PE8) and Freight (FE7) are dated. Incandescent bulb technology utilized in all but the Cosmos Club elevator requires more frequent replacement when compared to LED type bulbs. In order to improve reliability Ashland recommends that a complete modernization is undertaken within the next 1-2 years which would include new microprocessor controls, rebuilding of the existing Otis gearless traction machines, new operating fixtures and new cab finishes for FE7, PE8 (Library) & PE8 (Tayloe House).

All pit ladders will require replacement in order to provide a "grab bar" at proper height; most do not have a grab bar at all. Pit lighting appears to be adequate and all pits were "dry" with little to no evidence of water/moisture intrusion. GFCI electrical outlets also need to be provided in each pit, as well. Cat walks will be required to inspect the pit buffers of each passenger elevator needing them. Some of the elevator pits require cleaning. Walk-in pits are relatively clean.

The passenger elevator interiors, located in the main courts building (PE1-PE4 & PE5-PE6), are in good condition with plastic laminate walls, down light drop ceilings and tile flooring. PE7 (Cosmos Club) was modernized in 2014 so the cab interior finishes are in very good shape, as well. The freight elevator (FE7) cab interior finishes are heavily worn from normal use and should be replaced during a modernization. The Library elevator (PE8) has original cab finishes from 1975 and is in good condition. The Tayloe House elevator (PE8) cab finishes are in fair condition showing their age and should be replaced during modernization.

The finishes surrounding the hall button fixtures and hall lanterns are marble, sheet steel, concrete masonry and painted dry wall.

The hydraulic elevator machine room locations of FE7, PE8 (Library) & PE8 (Tayloe House) are adjacent to each elevator shaft at the bottom most level. Machine rooms are adequately ventilated with proper lighting. GFCI outlets will be required and an ABC type fire extinguisher is needed in each room. Holes in the machine room walls or floors require fire stopping to meet current code requirements.

SECTION I - EQUIPMENT EVALUATION

Howard T. Markey
Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

VERTICAL TRANSPORTATION SYSTEMS PROFILE

Building: **Markey Courts**
Building

	(Loading Dock)		(Library)	
	PE1 - PE4	PE5 - PE6	FE7	PE8
Capacity	3,000	2,000	4,000	1,200
Loading (Pass/Serv/Freight)	Passenger	Passenger	Freight	Passenger
Rated Speed (fpm)	400	400	75	100
Roping	2 to 1	2 to 1	N/A	N/A
Floors Served	11 (PE1 & PE4)	11	2	2
	9 (PE2 & PE3)			
Floor Identification	2B, 1B, 1-9	2B, 1B, 1-9	B & 1	1 & 2
	1 to 9			
Machine Type:	OH Gearless	OH Gearless	Dry Pump	Sub Pump
Control Type:	Armor	Armor	Otis Relay	ESCO Relay
Sequence of Operation	4 car group	Duplex	Simplex	Simplex
Door Configuration	SSCO	SSCO	Bi-Parting Frt	2SSO
Car Door Operator	MAC	MAC	OTIS	GAL MOD
Operating/Signal Fixtures	Incandescent	Incandescent	Incandescent	Incandescent
Door Entrance Size	42" w X 84" h	42" w X 84" h	68" w X 96" h	34" w X 84" h
Car & Cwt Buffers	Oil	Oil	Spring	Spring
Car Safeties	Otis	Otis	N/A	N/A
Overspeed Governor	Hollister Whitney	Hollister Whitney	N/A	N/A
Power Supply	208V 3 PH	208V 3 PH	208V 3 PH	208V 3 PH
O.E. M.	Otis	Otis	Otis	ESCO
Date of Installation	1964	1964	1964	1975
Modernization Contractor	Armor/KONE	Armor/KONE	N/A	N/A
Date of Modernization	1994	1994	N/A	N/A
Present Service Company	Admiral	Admiral	Admiral	Admiral
3 or 5 Year Full Load Test	Nov-14	Nov-14	1994	No Records
Annual No-Load Test	Oct-15	Oct-15	No Records	No Records

VERTICAL TRANSPORTATION SYSTEMS PROFILE

Building: **Markey Courts Building**

	(Cosmos)	(Tayloe)
	PE7	PE8
Capacity	1,800	1,800
Loading (Pass/Serv/Freight)	Passenger	Passenger
Rated Speed (fpm)	200	100
Roping	1 to 1	N/A
Floors Served	6	4
Floor Identification	G, 1 - 5	B, 1 - 4 (Front)
		1R, 2R (Rear)
Machine Type:	Basemt Grd	Sub Pump
Control Type:	MCE-4000	CEMCO PLC
Sequence of Operation	Simplex	Simplex
Door Configuration	2SSO	SSCO
Car Door Operator	GAL MOVFR	GAL MOD
Operating/Signal Fixtures	LED	Incandescent
Door Entrance Size	33" w X 84" h	36" w X 84" h
Car & Cwt Buffers	Oil	Spring
Car Safeties	Hollister Whitney	N/A
Overspeed Governor	Hollister Whitney	N/A
Power Supply	208V 3 PH	208V 3 PH
O.E. M.	F-S Payne	CEMCO
Date of Installation	Unknown	1993
Modernization Contractor	Maryland	N/A
Date of Modernization	2014	N/A
Present Service Company	Admiral	Admiral
3 or 5 Year Full Load Test	2013	No Records
Annual No-Load Test	Oct-14	No Records

LIFE CYCLE ANALYSIS – TRACTION SYSTEMS

Elevator I.D.: PE1 – PE4, PE5 – PE6 (Main Courts Building)

Date: 10/25/16

Component/System	Projected Design Life (Years)	Present Age (Years)	Remaining Useful Life (Years)	Condition Comments	Recommended Action
MACHINE ROOM					
1. Hoisting Machinery, Sheaves & Bearing	50-75	54	0	Good	Test & Rebuild
2. Drive Motor(s)	50-75	54	0	Good	Test & Rebuild
3. Power Drives	30-50	24	6	OBSOLETE	Replace during mod
4. Signal Controls (Selectors)	20-25	24	0	OBSOLETE	Replace during mod
5. Motion Controls	20-25	24	0	OBSOLETE	Replace during mod
HOISTWAY AND PIT					
1. Wire Ropes (Hoist, Comp. & Governor)	20-25	24	0	Good	Replace during mod
2. Guide Rails	75+	54	21+	Good	Clean, Align, Tighten
3. Mechanical Safety Equipment & Counterweight	75+	54	21+	Good	No action required
4. Hoistway Door Equipment	25-30	24	1	Fair	Replace during mod
CAR EQUIPMENT					
1. Car Door Equipment	20-25	24	0	Fair	Replace during mod
2. Cab Enclosure	20-30	24	0	Fair	Replace during mod
3. Car Frame	75+	54	21+	Good	No action required
4. Car Safety	75+	54	21+	Good	Replace during mod
OPERATING/SIGNAL EQUIPMENT					
1. Fixtures	20-25	24	0	Fair	Replace during mod

Howard T. Markey
Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

LIFE CYCLE ANALYSIS – HYDRAULIC SYSTEMS

Elevator I.D.: FE7 – Loading Dock

Date: 10/25/16

Component/System	Projected Design Life (Years)	Present Age (Years)	Remaining Useful Life (Years)	Condition Comments	Recommended Action
MACHINE ROOM EQUIPMENT					
1. Tank and Pumping Unit	30 – 40	52	0	OBSOLETE	Replace during mod
2. External Piping	40 – 50	52	0	Fair	Replace during mod
3. Signal Controls (Selectors)	20 - 25	52	0	OBSOLETE	Replace during mod
4. Manifold Control Valves	25 - 30	52	0	OBSOLETE	Replace during mod
HOISTWAY/PIT EQUIPMENT					
1. Guide Rails	75+	52	23+	Good	Clean, Align, Tighten
2. Cylinder –RAM	30 - 40	52	0	Fair	Piston gripper installed.
3. Hoistway Door Equipment	25 - 30	52	0	Fair	Replace during mod
4. Recovery System	20 - 25	52	0	N/A	5 gallon run-off bucket
CAR EQUIPMENT					
1. Car Frame	75+	52	23+	Good	No action required
2. Hoistway Door Equipment	25 - 30	52	0	OBSOLETE	Replace during mod
3. Cab Enclosure	20 - 30	52	0	Fair	Replace during mod
OPERATING/SIGNAL EQUIPMENT					
1. Operating/Signal Fixtures	20 - 25	52	0	Fair	Replace during mod

LIFE CYCLE ANALYSIS – HYDRAULIC SYSTEMS

Elevator I.D.: PE8 – Library

Date: 10/25/16

Component/System	Projected Design Life (Years)	Present Age (Years)	Remaining Useful Life (Years)	Condition Comments	Recommended Action
MACHINE ROOM EQUIPMENT					
5. Tank and Pumping Unit	30 – 40	41	0	Good	Replace during mod
6. External Piping	40 – 50	41	0	Good	Replace during mod
7. Signal Controls (Selectors)	20 - 25	41	0	OBSOLETE	Replace during mod
8. Manifold Control Valves	25 - 30	41	0	Fair	Replace during mod
HOISTWAY/PIT EQUIPMENT					
5. Guide Rails	75+	41	34+	Good	Clean, Align, Tighten
6. Cylinder –RAM	30 - 40	41	0	Good	Holeless cantilever design
7. Hoistway Door Equipment	25 - 30	41	0	Fair	Replace during mod
8. Recovery System	20 - 25	41	0	N/A	5 gallon run-off bucket
CAR EQUIPMENT					
4. Car Frame	75+	23	52+	Good	No action required
5. Car Door Equipment	25 - 30	23	2	Fair	Replace during mod
6. Cab Enclosure	20 - 30	23	0	Fair	Replace during mod
OPERATING/SIGNAL EQUIPMENT					
2. Operating/Signal Fixtures	20 - 25	23	0	Fair	Replace during mod

LIFE CYCLE ANALYSIS – TRACTION SYSTEMS

Elevator I.D.: PE7 - Cosmos Club (Recently modernized in 2014)

Date: 10/25/16

Component/System	Projected Design Life (Years)	Present Age (Years)	Remaining Useful Life (Years)	Condition Comments	Recommended Action
MACHINE ROOM					
6. Hoisting Machinery, Sheaves & Bearing	50-75	2	48	Good	No action required
7. Drive Motor(s)	50-75	2	48	Good	No action required
8. Power Drives	30-50	2	28	Good	No action required
9. Signal Controls (Selectors)	20-25	2	18	Good	No action required
10. Motion Controls	20-25	2	18	Good	No action required
HOISTWAY AND PIT					
5. Wire Ropes (Hoist, Comp. & Governor)	20-25	2	18	Good	No action required
6. Guide Rails	75+	54	21+	Good	No action required
7. Mechanical Safety Equipment & Counterweight	75+	2	73+	Good	No action required
8. Hoistway Door Equipment	25-30	2	23	Good	No action required
CAR EQUIPMENT					
5. Car Door Equipment	20-25	2	18	Good	No action required
6. Cab Enclosure	20-30	2	18	Good	No action required
7. Car Frame	75+	54	21+	Good	No action required
8. Car Safety	75+	54	21+	Good	No action required
OPERATING/SIGNAL EQUIPMENT					
2. Fixtures	20-25	2	18	Good	No action required

Howard T. Markey
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Cosmos Club DC0113ZZ
Washington, DC

LIFE CYCLE ANALYSIS – HYDRAULIC SYSTEMS

Elevator I.D.: PE8 – Tayloe House

Date: 10/25/16

Component/System	Projected Design Life (Years)	Present Age (Years)	Remaining Useful Life (Years)	Condition Comments	Recommended Action
MACHINE ROOM EQUIPMENT					
9. Tank and Pumping Unit	30 – 40	23	7	Fair	Replace during mod
10. External Piping	40 – 50	23	17	Good	Replace during mod
11. Signal Controls (Selectors)	20 - 25	23	0	OBSOLETE	Replace during mod
12. Manifold Control Valves	25 - 30	23	0	Fair	Replace during mod
HOISTWAY/PIT EQUIPMENT					
9. Guide Rails	75+	23	52+	Good	Clean, Align, Tighten
10. Cylinder –RAM	30 - 40	23	7	Fair	No Action Required
11. Hoistway Door Equipment	25 - 30	23	2	Good	Replace during mod
12. Recovery System	20 - 25	23	0	Good	Replace during mod
CAR EQUIPMENT					
7. Car Frame	75+	23	52+	Good	No Action Required
8. Car Door Equipment	25 - 30	23	2	Fair	Replace during mod
9. Cab Enclosure	20 - 30	23	0	Poor	Replace during mod
OPERATING/SIGNAL EQUIPMENT					
3. Operating/Signal Fixtures	20 - 25	23	0	Fair	Replace during mod

CODES AND STANDARDS REVIEW – ELEVATORS ONLY

All passenger elevators (PE1 – PE4, PE5 – PE6) in the Markey Courts Building were upgraded in the mid 1990's. The present components are a mixture of old (machine, motor, car, counterweight, pit equipment, fixtures) and new (controller, SCR drives and door operating components). The freight elevator (FE7) is original as installed in 1964, Library elevator (PE8) is original as installed in 1975, Cosmos Club (PE7) was modernized in 2013 and Tayloe House (PE8) is original as installed from 1993. The systems do not meet the latest code regulations in the following areas:

- Record Keeping - Data Tags / Testing Requirements (Annual hydraulic testing)
- Car Door Restrictor Devices - Repair non-functioning car door restrictor device (PE5)

Note: Annual Safety Inspections (Cat 1) are overdue for the hydraulic elevators (FE7, PE8 [Library]& PE8 [Tayloe House]) in the building. Traction annual safety inspections are due to be completed in November 2016 to stay current. Cosmos Club traction elevator annual safety inspection is overdue, last completed in October, 2014.

Annual Safety Inspection (Cat 1) All test are performed at inspection speed with no load inside the elevator. Manually activate the safeties, governor, emergency final limits, over speed switch, door locks, gate switches, car door restrictors, stop switches and buffer switches. Activate Fireman's Service Phase I & II. Test emergency lighting / alarm / communications. Test the door protection devices and closing force. Unintended movement device is also verified.

3 year test (Cat 3 for hydraulic elevators): This type of testing only is required if the unit has a pressure vessel (hydraulic valve) as a means of propulsion. The pressure vessel must be charged at maximum pressure for 15 mins without changes to pressure. A visual inspection inside of the vessel is also performed.

5 year full-load (Cat 5): Same scope of work as the Cat 1 no load test. In addition, while elevator is operating at contract speed. Conduct a full load (elevator capacity) safety drop test, 125% capacity elevator brake test and a full load buffer test. Manually test the governor activation speeds and governor pull through.

What the 5 year test involves and what is expected at the end of the test? The elevator is loaded to maximum designed capacity and with the elevator traveling in the down direction, the speed governor is activated to put the elevator on emergency stop. The distance of slide on the main elevator rails is then measured for tolerance as well as the level of the elevator itself after the emergency brakes (safety) are applied and the car has come to a complete stop. After this is completed, the elevator is further tested in the down direction (under full load, contract speed) and strikes the elevator pit buffer. The elevator then is lifted, and the buffers (oil type) must return to original position within 90 secs. Additional weight is added (25% of capacity) to the cab. The elevator is tested again in the down direction and must stop within normal leveling tolerances between the car and hoistway entrance sills. All tests have specific tolerances set by ANSI A17.1 in relation to the elevator design; type, speed and capacity

THE AMERICANS WITH DISABILITIES ACT (ADAAG)
SURVEY OF EXISTING ELEVATOR SYSTEMS

ELEVATOR(S) IDENTIFICATION: All Passenger Elevators

DATE: October 25, 2016

Note: FE7 is a freight elevator with power operated bi-parting freight doors that are for freight and freight handlers only and as a result do not have to meet these requirements.

S = SATISFACTORY, U = UNSATISFACTORY, R = READILY ACHIEVABLE, NA = NOT APPLICABLE

A.D.A.AG SEC.	ITEM	TECHNICAL REQUIREMENTS	S	U	EXISTING CONDITION/ NOTES	R
4.10.1	General	<p>A. Elevators shall comply with ASME/ANSI A17.1-1990, Safety Code for Elevators and Escalators.</p> <p>B. Freight elevators shall not be considered as meeting the requirements of this section unless the only elevators provided are used as combination passenger and freight elevators for the public and employees.</p>	X		<p>Per 1994 modernization (PE1-PE6) Per F/S upgrade in 1994 (PE8) Per 2014 modernization (PE7 Cosmos Club) Per installation date 1993 (PE8, Tayloe House)</p>	
4.10.2	Automatic Operations	<p>A. Elevator operation shall be <u>automatic</u>.</p> <p>B. Each car shall have a self-leveling feature that will automatically bring the car to floor landing within a tolerance of ½" under rated loading and zero loading conditions.</p> <p>C. This self-leveling feature shall be automatic and independent of the operating device and shall correct for under travel and over travel.</p>	X X X			
4.10.3	Hall Call Buttons	<p>A. Shall be centered at <u>42"</u> above floor.</p> <p>B. Shall have visual signals to indicate when call is registered and answered.</p> <p>C. Minimum size 3/4" in the smallest dimension.</p> <p>D. "UP" button shall be above "DOWN" button.</p> <p>E. Buttons shall be raised or flush.</p> <p>F. Objects mounted beneath buttons shall not project more than 4" from the wall.</p>	X X X X		N/A	

A.D.A.AG SEC.	ITEM	TECHNICAL REQUIREMENTS	S	U	EXISTING CONDITION/ NOTES	R
4.10.4	Hall Lanterns	<p>A. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call.</p> <p>B. Audible signals shall sound once for "up", twice for "down", or shall have verbal annunciators that say "up" or "down".</p> <p>C. Visible signals shall have the following features:</p> <ol style="list-style-type: none"> 1. Fixtures shall be mounted with centerlines at least 72" above the lobby floor. 2. Visual elements shall be at least 2 ½" in the smallest dimension. 3. Signals shall be visible from the vicinity of the hall call button. <p>D. In-car lanterns, conforming to the above requirements, shall be acceptable.</p>	X			
			X			
			X			
			X			
					N/A	
4.10.5 4.30.4	Characters On Hoistway Entrances	<p>A. All elevator hoistway entrances shall have raised and Braille floor designations provided on both jambs.</p> <p>B. Characters shall be centered 60" above finish floor.</p> <p>C. Characters shall be 2" high, raised 1/32", upper case, sans serif or simple serif type, and shall be accompanied by Grade 2 Braille.</p>	X			
			X			
			X			
4.10.6 4.16(3)(i)	Door Protective and Reopening Device	<p>A. Elevator doors shall open and close automatically.</p> <p>B. Door shall have a reopening device that will stop and reopen a car door if an object or person obstructs the door.</p> <ol style="list-style-type: none"> 1. The device shall be capable of completing these operations without requiring contact for an obstruction passing through the opening at heights of 5" and 29" above finish floor. 2. Door reopening device shall remain effective for at least 20 seconds. After such interval, doors may close in accordance with ASME/ANSI A17.1-1990.Rule 112.4 and Rule 112.5 closing force provisions. 	X			
			X			
			X			

A.D.A.AG SEC.	ITEM	TECHNICAL REQUIREMENTS	S	U	EXISTING CONDITION/ NOTES	R
4.10.7	Door and Signal Timing for Hall Calls	<p>A. The minimum acceptable time from notification that a car is answering a call until doors begin to close shall be calculated as follows:</p> <p style="margin-left: 40px;">) $T = D/(1.5 \text{ ft/s})$ or $T=D/(445 \text{ mm/s})$</p> <p style="margin-left: 40px;">) T = time in seconds</p> <p style="margin-left: 40px;">) D = distance (in ft or mm) from point 60" directly in front of farthest call button to centerline of hoistway door.</p> <p style="margin-left: 40px;">) The minimum acceptable notification time shall be 5 seconds.</p>	X			
4.10.8	Door Delay for Car Calls	A. The minimum time for elevator doors to remain fully open in response to a call shall be 3 seconds.		X	Cosmos Club PE7 only	
4.10.9 4.16(3)(ii)	Floor Plan of Elevator Cars	<p>Shall provide for wheelchair users to enter the car, maneuver within reach of controls and exit the car.</p> <p>A. Door shall provide 36" clear minimum.</p> <p>B. Cab Depth: 51" minimum, with 54" minimum from rear of cab to inside face of door.</p> <p>C. Cab Width: side opening door - 68" minimum; Center opening door - 80" minimum.</p> <p>D. Clearance between car platform sill and edge of hoistway landing shall be 1 1/4" maximum.</p> <p>E. Alterations/Existing Condition: Where existing plan configuration or technical infeasibility prevent use of specified cab sizes, dimensions may be reduced as required. However, in no case shall the inside car dimensions be less than 48" by 48".</p> <p>F. Equivalent facilitation may be provided with a cab of different size when usability can be demonstrated and when all other items required to be accessible comply with this section.</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>		<p>34" wide (PE8, Library) 33" wide (PE7, Cosmos Club) Per A17.3 Existing Elevators & Escalators</p> <p>N/A</p> <p>N/A</p>	

A.D.A.AG SEC.	ITEM	TECHNICAL REQUIREMENTS	S	U	EXISTING CONDITION/ NOTES	R
4.10.10	Floor Surfaces	<p>A. Shall be firm, stable and slip-resistant</p> <p>B. If carpet is used, it shall have the following features:</p> <ol style="list-style-type: none"> 1. Shall be securely attached; 2. A firm cushion pad or backing (or none); 3. A level loop, textured loop, level cut pile or level cut/uncut pile texture; 4. Maximum pile thickness: ½" 5. Exposed edges fastened to floor surfaces with carpet edge trim. 	X		N/A	
4.10.11	Illumination Levels	A. Illumination level at controls, platform and threshold and landing shall be minimum 5 foot-candles..	X			
4.10.12 (1)	Car Controls: Buttons	<p>A. Size 3/4" minimum in least dimension.</p> <p>B. Buttons shall be raised or flush.</p>	X X			
4.10.12 (2)	Car Controls: Control Indicators	<p>C. All control buttons shall be designated by Braille and by raised standard alphabet characters for letters, Arabic symbols for numerals, or standard symbols are required in ASME/ANSI 17.1-1990.</p> <p>D. Characters shall be 5/8" to 2" high, raised 1/32", upper case, sans serif or simple serif type, and shall be accompanied by Grade 2 Braille.</p> <p>E. All raised designations shall be immediately left of the button to which they apply.</p> <p>F. Floor buttons shall be provided with visual signals which light when each call is registered and extinguish when each call is answered.</p>	X X X X			
4.10.12 (3)	Car Controls: Height	<p>G. All floor buttons shall be maximum 54" above floor where side approach is provided, 48" maximum where forward approach is required.</p> <p>H. Emergency controls (including alarm and stop) shall be grouped at bottom of panel, with centerlines 35" minimum above floor.</p>	X X			

A.D.A.AG SEC.	ITEM	TECHNICAL REQUIREMENTS	S	U	EXISTING CONDITION/ NOTES	R
4.10.12 (4)	Car Controls: Location	I. Controls shall be located on a front wall if cars have center opening doors, and at either a side wall or the front wall if cars have side opening doors.	X			
4.10.13	Car Position Indicators	<p>A. A visual car position indicator shall be provided above the car control panel or above the door.</p> <p>B. As the car passes or stops at a floor, the corresponding numbers shall illuminate and an audible signal shall sound.</p> <p>C. Numerals shall be a minimum of ½" high.</p> <p>D. Audible signal shall be no less than 20 decibels with frequency no higher than 1500 Hz.</p> <p>E. An automatic verbal announcement of the floor number may be substituted for the audible signal.</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>		N/A	
4.10.14	Emergency Communications	<p>Emergency two-way communication system between the elevator and a point outside the hoistway shall comply with ASME/ANSI A17.1-1990</p> <p>A. Highest operable part of system shall be maximum 48" from floor.</p> <p>B. System shall be identified by raised symbol and lettering located adjacent to the device.</p> <p>C. Characters shall be 5/8" to 2" high, raised 1/32", upper case, sans serif or simple serif type, and shall be accompanied by Grade 2 Braille.</p> <p>D. If system uses a handset, minimum cord length shall be 29".</p> <p>E. If located in a closed compartment, door shall be operable with one hand, shall not require tight grasping, pinching, or twisting of the wrist, and shall require a maximum force of 5 lb.</p> <p>F. The emergency communication system shall not require voice communication. (Voice only system is inaccessible to persons with speech or hearing impairments.)</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>			

SECTION II - MAINTAINED CONDITION EVALUATION

Howard T. Markey
Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

ITEMIZED MAINTENANCE DEFICIENCIES

Main Courts Building: PE1-PE4, PE5 – PE6, FE7

Machine Room: PE1 – PE4

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Annual safety inspections (Cat 1) are due to be completed October, 2016.

Machine Room: PE5 – PE6

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Annual safety inspections (Cat 1) are due to be completed October, 2016.

Machine Room: FE7

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Remove oil soak pads from under tank unit and correct excessive leaking.
3. Replace missing light bulb on elevator car top.
4. No records of last testing dates for either 3 year (Cat 3) or annual safety inspection (Cat 1).

General Observations:

1. Hoistway/car door maintenance is overdue (passenger elevators).
2. Clean elevator car tops of dirt and debris.
3. Correct hoist rope alignment of PE3 related to car top 2:1 deflector sheave.
4. Adjust door operating times to within industry standards, refer to Recorded Operating Performance chart (passenger elevators only).

Library: PE8

Machine Room:

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Fire stop holes in machine room floor.
3. No records of last testing dates for either 3 year (Cat 3) or annual safety inspection (Cat 1).

General Observations:

1. Adjust door operating times to within industry standards, refer to Recorded Operating Performance chart.

Cosmos Club: PE7

Machine Room:

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Annual safety inspection (Cat 1) was performed in October, 2014, and is overdue.

General Observations:

1. Adjust door operating times to within industry standards, refer to Recorded Operating Performance chart.
2. Re-label all elevator components in pit, machine room and car top to reflect new elevator number “9” in lieu of “7”.

Taylor House: PE8

Machine Room:

1. Record keeping is not up to date. Provide maintenance records per Code.
2. Fire stop holes in machine room wall (pipe penetrations).
3. No records of last testing dates for either 3 year (Cat 3) or annual tests (Cat 1)

General Observations:

1. Hoistway vent at top of elevator shaft has been closed off.
2. Light fixtures in hoistway are coming loose from hoistway wall, secure to wall.
3. Clean pit of dirt and debris.
4. Double door access to machine room is not Code compliant, must be self-closing, self-locking and properly labeled.
5. Adjust door operating times to within industry standards, refer to Recorded Operating Performance chart.
6. Re-label all elevator components in pit, machine room and car top to reflect new elevator number “10” in lieu of “8”.

MAINTENANCE CONTRACT REVIEW

Current Contract Provisions:

THESE DOCUMENTS HAVE NOT BEEN PROVIDED TO ASHLAND INDUSTRIAL SERVICES

Recommendations:

Howard T. Markey
Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

RECORDED OPERATING PERFORMANCE

SSCO - 42" wide Main Courts Bldg	ELEV. NO. PE1	ELEV. NO. PE2	ELEV. NO. PE3	ELEV. NO. PE4	ELEV. NO. PE5	ELEV. NO. PE6	ACCEPTABLE STANDARDS FOR THIS EQUIPMENT
A. SPEED - UP DIRECTION (FPM)	367*	399	396	403	404	399	380 – 420
B. SPEED – DOWN DIRECTION (FPM)	370*	399	396	406	403	397	380 – 420
C. DOOR OPENING TIME (SEC)	2.6*	2.2*	2.1*	1.7*	2.2*	2.4*	1.4 – 1.6
D. DOOR CLOSING TIME (SEC)	2.9	3.2	3.5*	2.9	3.1	3.6*	2.8 – 3.0
E. DOOR OPEN DURATION - CAR CALL (SEC)	4.0	4.1	4.6	4.0	4.0	4.1	3.0 minimum
F. DOOR OPEN DURATION - HALL CALL (SEC)	6.1	5.9	5.8	5.9	5.3	5.6	5.0 minimum
G. DOOR OPEN DURATION - AFTER PROTECTIVE SHIELD IS RE- ESTABLISHED (SEC)	1.0	1.0	.7	.9	1.5*	2.0*	.5 to 1.0
H. FLOOR TO FLOOR PERFORMANCE TIME (SEC)	16.6*	14.7*	13.7*	15.1*	13.6*	13.9*	11.5 – 12.5
I. START (milli g) Up/Down	132/107	133/102	116/85	95/87	68/63	74/69	
J. ACCEL (milli g) Up/Down	127/110	128/109	114/109	107/108	105/106	105/100	
K. DECEL (milli g) Up/Down	78/80	83/86	81/85	88/92	75/89	89/88	
L. STOP (milli g) Up/Down	20/32	34/38	32/32	36/39	31/36	37/36	
M. JERK (milli g) Up/Down	5.7/13.8	5.0/13.3	5.5/14.1	4.9/9.9	5.2/7.6	5.2/7.6	15.0 max
N. STOPPING ACCURACY (INCHES)	1/4	1/4	1/4	1/4	1/4	1/4	± ½
O. CAR DOOR CLOSING PRESSURE (LBS)	20	22	24	23	24	26	30 Maximum

* DENOTES UNACCEPTABLE CONDITION BASED ON STANDARDS SPECIFIED.

N/E - denotes "No Evaluation" of referenced standard performed.

N/A - denotes standard is "Not Applicable" to these systems.

N/O - denotes "Not Operative" at time of evaluation.

RECORDED OPERATING PERFORMANCE

2SSO - 34" wide Library	ELEV NO. PE8	ACCEPTABLE STANDARDS FOR THIS EQUIPMENT
A. SPEED - UP DIRECTION (FPM)	78*	95 – 105
B. SPEED – DOWN DIRECTION (FPM)	55*	95 – 105
C. DOOR OPENING TIME (SEC)	2.5	2.4 – 2.6
D. DOOR CLOSING TIME (SEC)	3.2	4.8 – 5.0
E. DOOR OPEN DURATION - CAR CALL (SEC)	3.5	3.0 minimum
F. DOOR OPEN DURATION - HALL CALL (SEC)	6.0	5.0 minimum
G. DOOR OPEN DURATION - AFTER PROTECTIVE SHIELD IS RE- ESTABLISHED (SEC)	1.0	.5 to 1.0
H. FLOOR TO FLOOR PERFORMANCE TIME (SEC)	23.5*	16.5 – 17.5
I. START (milli g) Up/Down	45/32	
J. ACCEL (milli g) Up/Down	19/36	
K. DECEL (milli g) Up/Down	34/21	
L. STOP (milli g) Up/Down	16/10	
M. JERK (milli g) Up/Down	9.4/6.8	15.0 max
N. STOPPING ACCURACY (INCHES)	1/4	± ½
O. CAR DOOR CLOSING PRESSURE (LBS)	26	30 Maximum

* DENOTES UNACCEPTABLE CONDITION BASED ON STANDARDS SPECIFIED.

N/E - denotes "No Evaluation" of referenced standard performed.

N/A - denotes standard is "Not Applicable" to these systems.

N/O - denotes "Not Operative" at time of evaluation

RECORDED OPERATING PERFORMANCE

2SSO - 33" wide Cosmos Club	ELEV O. PE7	ACCEPTABLE STANDARDS FOR THIS EQUIPMENT
A. SPEED - UP DIRECTION (FPM)	202	190 – 210
B. SPEED – DOWN DIRECTION (FPM)	201	190 – 210
C. DOOR OPENING TIME (SEC)	2.5	2.4 – 2.6
D. DOOR CLOSING TIME (SEC)	5.4*	4.8 – 5.0
E. DOOR OPEN DURATION - CAR CALL (SEC)	2.6*	3.0 minimum
F. DOOR OPEN DURATION - HALL CALL (SEC)	5.0	5.0 minimum
G. DOOR OPEN DURATION - AFTER PROTECTIVE SHIELD IS RE-ESTABLISHED (SEC)	1.5*	.5 to 1.0
H. FLOOR TO FLOOR PERFORMANCE TIME (SEC)	17.1*	15.0 – 16.0
I. START (milli g) Up/Down	48/41	
J. ACCEL (milli g) Up/Down	89/85	
K. DECEL (milli g) Up/Down	52/53	
L. STOP (milli g) Up/Down	13/15	
M. JERK (milli g) Up/Down	4.4/7.9	15.0 max
N. STOPPING ACCURACY (INCHES)	1/4	± ½
O. CAR DOOR CLOSING PRESSURE (LBS)	20	30 Maximum

* DENOTES UNACCEPTABLE CONDITION BASED ON STANDARDS SPECIFIED.

N/E - denotes "No Evaluation" of referenced standard performed.

N/A - denotes standard is "Not Applicable" to these systems.

N/O - denotes "Not Operative" at time of evaluation

RECORDED OPERATING PERFORMANCE

SSCO - 36" wide Taylor House	ELEV. NO. PE8 (front)	ELEV. NO. PE8 (rear)	ACCEPTABLE STANDARDS FOR THIS EQUIPMENT
A. SPEED - UP DIRECTION (FPM)	105	N/A	95 – 105
B. SPEED – DOWN DIRECTION (FPM)	99	N/A	95 – 105
C. DOOR OPENING TIME (SEC)	3.1*	3.2*	1.2 – 1.4
D. DOOR CLOSING TIME (SEC)	4.6*	4.3*	2.4 – 2.6
E. DOOR OPEN DURATION - CAR CALL (SEC)	3.2	3.2	3.0 minimum
F. DOOR OPEN DURATION - HALL CALL (SEC)	5.1	5.1	5.0 minimum
G. DOOR OPEN DURATION - AFTER PROTECTIVE SHIELD IS RE- ESTABLISHED (SEC)	1.5*	1.6*	.5 to 1.0
H. FLOOR TO FLOOR PERFORMANCE TIME (SEC)	16.5	N/A	16.5 – 17.5
I. START (milli g) Up/Down	43/41	N/A	
J. ACCEL (milli g) Up/Down	30/38	N/A	
K. DECEL (milli g) Up/Down	65/44	N/A	
L. STOP (milli g) Up/Down	48/22	N/A	
M. JERK (milli g) Up/Down	9.6/10.0	N/A	15.0 max
N. STOPPING ACCURACY (INCHES)	1/4	1/4	± ½
O. CAR DOOR CLOSING PRESSURE (LBS)	24	25	30 Maximum

* DENOTES UNACCEPTABLE CONDITION BASED ON STANDARDS SPECIFIED.

N/E - denotes "No Evaluation" of referenced standard performed.

N/A - denotes standard is "Not Applicable" to these systems.

N/O - denotes "Not Operative" at time of evaluation.

DEFINITIONS AND MEASUREMENTS

OF ITEMS LISTED IN

RECORDED OPERATING PERFORMANCE

- A&B. **Speed** is the rate at which the measured unit travels. The speed has been measured during a complete run of the unit and was taken as the highest sustained value recorded using a hand held tachometer.
- C. **Door Opening Time** is defined as the start of car doors opening until they are fully opened. The time was measured in seconds from the moment the car doors start to open until the car doors are fully open (i.e., motion stops).
- D. **Door Closing Time** is defined as the start of the car doors closing until fully closed. The time was measured in seconds from the moment the car doors start to close until the car doors are fully closed (i.e., motion stops).
- E. **Door Open Duration for a Car Call** is defined as the length of time the car doors remain fully open in response to a car call without anyone passing through the protective shield. This time was measured in seconds from the stop in the open motion of the car doors until the start of the closing motion of the car door.
- F. **Door Open Duration for a Hall Call** is defined as the length of time the car doors remain fully open in response to a lobby call without anyone passing through the protective shield. This time was measured in seconds from the stop in the open motion of the car doors until the start of the closing motion of the car doors.
- G. **Door Open Duration After Protective Shield is Re-Established** is defined as the length of time the car doors remain open after an object has passed through the protective shield until the car doors begin to close. This time was measured in seconds from the stop in the motion of the car doors until the re-start of the closing motion of the car doors.
- H. **Floor to Floor Performance Time** is defined as the time required for the movement of a car between two (2) floors, including the door closing and effective door opening for passenger transfer. The time was measured in seconds from the start of door closing at one floor until the car was stopped (within stopping accuracy) at the next floor with the doors opened for passenger transfer.
- I. **Start Up/Down (milli g)** is measured at the beginning of car motion.
- J. **Accel Up/Down (milli g)** is the measure of acceleration immediately after the Start measure.
- K. **Decel Up/Down (milli g)** is the measure of transition from high speed to leveling speed or stop.
- L. **Stop Up/Down (milli g)** is measure of the stopping rate to the floor level.
- M. **Jerk Up/Down (milli g)** is a term used to describe a change in acceleration. In mathematical terms one jerk is equal to a change in acceleration of one foot per second per second, in one second of time. One jerk equals a rate change of .03108 g's in one second. Optimal jerk rate is 15.0 or less.
- N. **Stopping Accuracy** is the distance between the car and hoistway sills when the car is stopped at a floor and was measured as the vertical distance (in inches) between the horizontal planes of the car and hoistway sills when the car is stopped at a floor.
- O. **Car Door Closing Pressure** is the amount of force required to hold a door from closing after stalling the door, by external means, at about 1/3 of the closing distance. The door pressure was measured in pounds and was recorded upon removal of the physical block.

SECTION III – SCOPE, BUDGET COSTS & PRIORITIES

Design Intent

As part of Ashland's recommendations for upgrades, modernization and/or refurbishment of the elevator equipment, the elevator equipment rooms/spaces have been evaluated, including components such as lighting, HVAC, fire protection, emergency power interface, enclosures, etc. The scope of work for each grouping of elevators requires that the elevator systems and areas comply with GSA Standards / Guidelines / Alerts and all current Codes. The design will bring the elevators up to the latest editions of ASME A17.1 Safety Code for Elevators and Escalators, A17.3 Safety Code for Existing Elevators and Escalators, A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts, ANPA 70 National Electric Code and NFPA 101 life safety codes.

Phasing of the elevator modernization should begin with PE5 – PE6, then PE1 – PE4. Once the passenger elevators have been modernized then modernize FE7, PE8 (Library) and finally PE8 (Tayloe House).

Passenger Elevators PE1 – PE4

Rebuild the Otis overhead gearless traction machines, provide new elevator controllers with SCR drives, install “rope gripper” for unintended movement, provide new hoist and governor ropes, new hoistway wiring and traveling cables, new car and counterweight roller guides, new hoistway door tracks, hangers, rollers and safety interlocks, new car door operator (closed loop), new car door panels and ventilation, new car top inspection station, new hall and car operating fixtures with LED lamps, new car safeties, paint entrance frames, new electronic door edge detector, new cab interior applied panels. Retain car and counterweight guide rails, refurbish compensation sheaves and governor cable tension assembly, clean hoistway entrance sills and car sill, refurbish hoistway door panels, retain cab interior lighting and flooring, retain car frame and platform, modify lobby control panel.

Budget Cost per elevator: \$482,490 x 4 elevators = \$1,929,960 (FY 2017 dollars)

Building related work will be required as follows: Replace main power supply and distribution panel in its entirety, replace all circuit control devices with new components, make all elevator control connections to emergency power transfer switch and lobby control station, refurbish machine room and secondary area lighting, install access doors and catwalk for secondary areas, provide new HVAC unit(s) in elevator machine room, provide new pit and hoistway lighting and modify pit access. Paint machine rooms and hoistways as required.

Budget Cost for Building Related Work: \$645,820 (FY 2017 dollars)

Total Budget Cost for PE1 – PE4 & Building Related Work: \$2,575,780 (FY 2017 dollars)

Passenger Elevators PE5 & PE6

Rebuild the Otis overhead gearless traction machines, provide new elevator controllers with SCR drives, install “rope gripper” for unintended movement, provide new hoist and governor ropes, new hoistway wiring and traveling cables, new car and counterweight roller guides, new hoistway door tracks, hangers, rollers and safety interlocks, new car door operator (closed loop), new car door panels, ventilation and car door sill, new car top inspection station, new hall and car operating fixtures with LED lamps, new car safeties, paint entrance frames, new electronic door edge detector, new cab side wall bumpers and new cab lighting and diamond plate flooring. Retain car and counterweight guide rails, refurbish deflector sheaves and governor cable tension assembly, clean hoistway entrance sills, refurbish hoistway door panels, retain car frame and platform, modify lobby control panel.

Budget Cost per elevator: \$482,490 x 2 elevators = \$964,980 (FY 2017 dollars)

Building related work will be required as follows: Replace main power supply and distribution panel in its entirety, replace all circuit control devices with new components, make all elevator control connections to emergency power transfer switch and lobby control station, refurbish fire controls, provide new HVAC unit(s) in elevator machine room, provide new pit, machine room and hoistway lighting and modify general space conditions in machine room. Paint machine rooms and hoistways as required.

Budget Cost for Building Related Work: \$532,100 (FY 2017 dollars)

Total Budget Cost for PE5 & PE6 & Building Related Work: \$1,497,080 (FY 2017 dollars)

Freight Elevator FE7

Provide new pump unit and valve controls. Provide new drive motor and elevator controller with emergency battery lowering. Replace in-ground hydraulic jack components and related pit equipment. Provide new hoistway wiring and traveling cables, new car guide assemblies, new car gate operator, car gate and freight door equipment complete, new cab enclosure, lighting , ventilation, flooring, new hall and car operating fixtures with LED type lamps.

Budget Cost: \$428,640 (FY 2017 dollars)

Building related work will be required as follows: Replace main power supply and distribution panel in its entirety, replace all circuit control devices with new components, provide new fire controls, provide new HVAC unit in elevator machine room, provide new pit, machine room and hoistway lighting and modify machine room access. Paint machine rooms and hoistways as required.

Budget Cost for Building Related Work: \$90,084 (FY 2017 dollars)

Howard T. Markey
Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

Total Budget Cost for FE7 & Building Related Work: \$518,724 (FY 2017 dollars)

Passenger Elevator PE8 (Library)

Refurbish pump unit and valve controls. Retain drive motor and provide new elevator controller with emergency battery lowering. Reuse cantilevered hydraulic jack components and related pit equipment. Provide new hoistway wiring and traveling cables, new car guide assemblies, new car door operator and clutch, new car door panels, new cab interior, lighting , ventilation, flooring, new hall and car operating fixtures with LED type lamps.

Budget Cost: \$122,520 (FY 2017 dollars)

Building related work will be required as follows: Replace main power supply and distribution panel in its entirety, replace all circuit control devices with new components, provide new fire controls, provide new HVAC unit in elevator machine room, provide new pit, machine room and hoistway lighting and modify machine room access. Paint machine rooms and hoistways as required.

Budget Cost for Building Related Work: \$90,384 (FY 2017 dollars)

Total Budget Cost for PE8 & Building Related Work: \$212,904 (FY 2017 dollars)

Passenger Elevator PE7 (Cosmos Club)

This passenger elevator was completed modernized in 2014 and should serve the Cosmos Club reliably for many years to come.

Passenger Elevator PE8 (Tayloe House)

Provide new pump unit and valve controls. Provide new drive motor and elevator controller with emergency battery lowering. Provide new hoistway wiring and traveling cables, new car guide assemblies, new car door operator and clutch, new car door panels, new cab enclosure, lighting, ventilation, flooring, new hall and car operating fixtures with LED type lamps.

Budget Cost: \$224,220 (FY 2017 dollars)

Building related work will be required as follows: Replace main power supply and distribution panel in its entirety, replace all circuit control devices with new components, provide new fire controls, provide new HVAC unit in elevator machine room, provide new pit, machine room and hoistway lighting and modify machine room access. Paint machine rooms and hoistways as required.

Budget Cost for Building Related Work: \$135,164 (FY 2017 dollars)

Total Budget Cost for PE8 & Building Related Work: \$359,384 (FY 2017 dollars)

GRAND TOTAL for ALL Elevators & Building Related Work: \$5,163,872 (FY 2017 dollars)

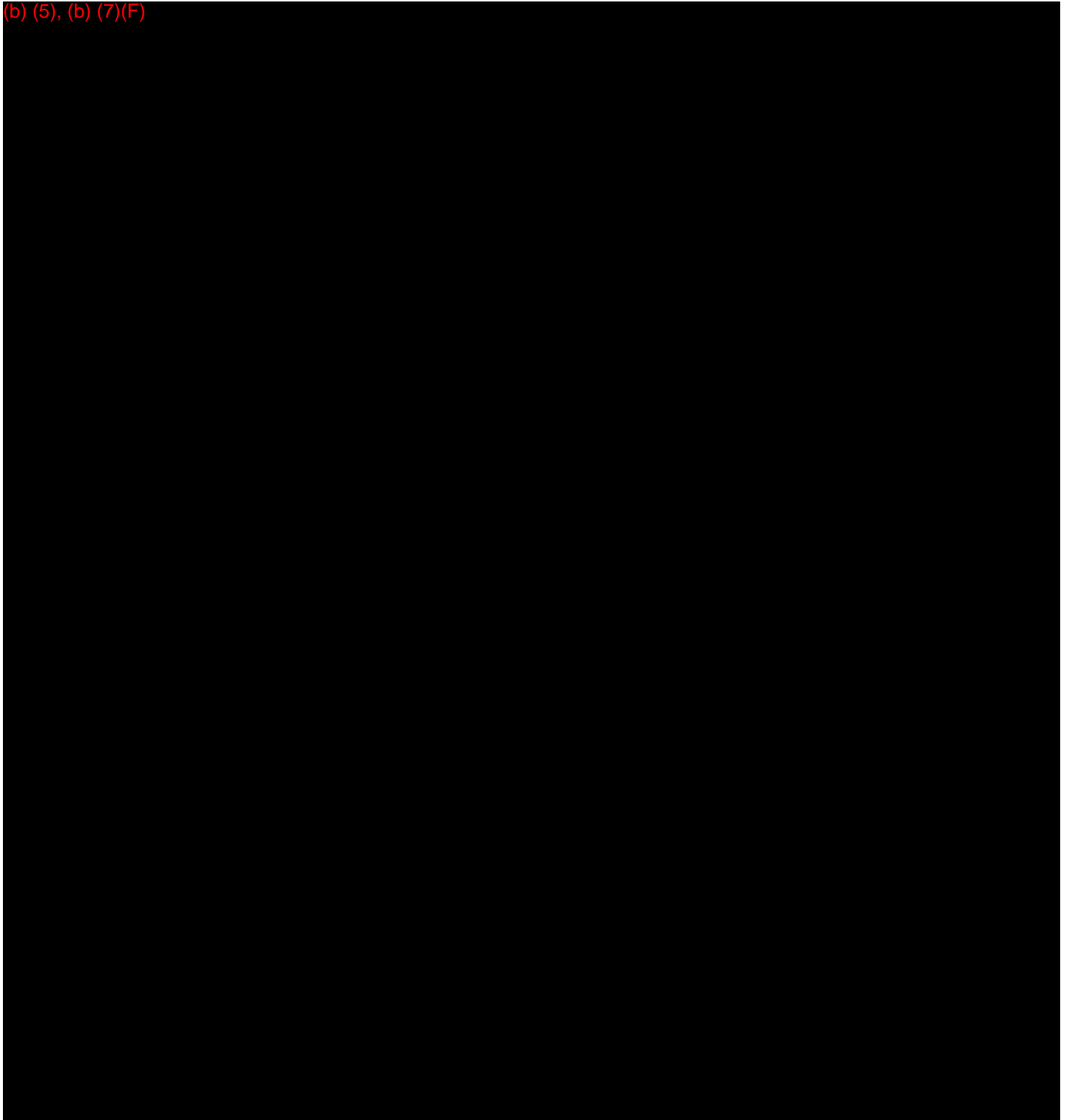
SECTION IV – PHOTOGRAPHS, SCHEDULE & KEY PLAN

Attachments A, B & C

ATTACHMENT A

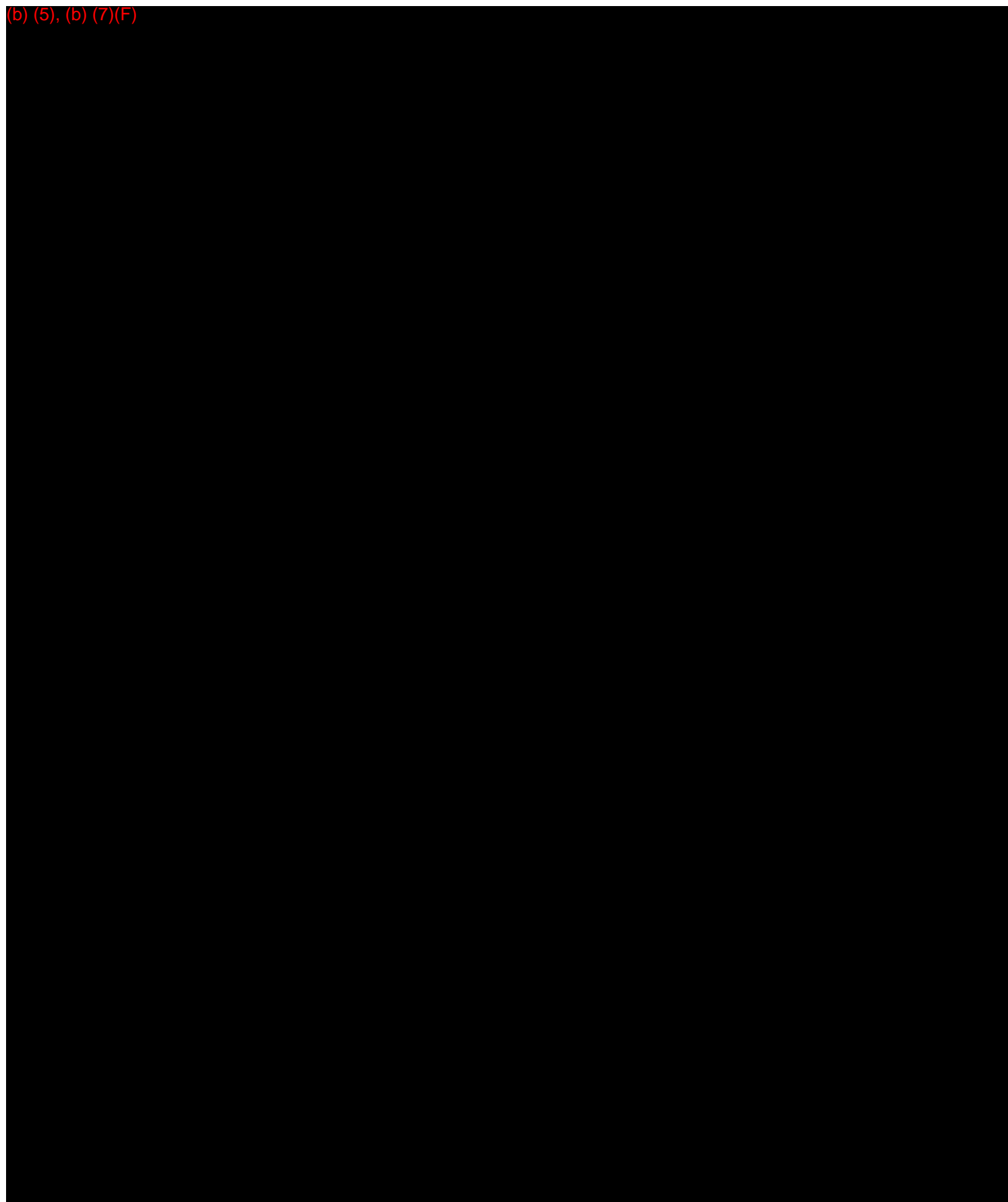
PHOTOGRAPHS

(b) (5), (b) (7)(F)



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Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

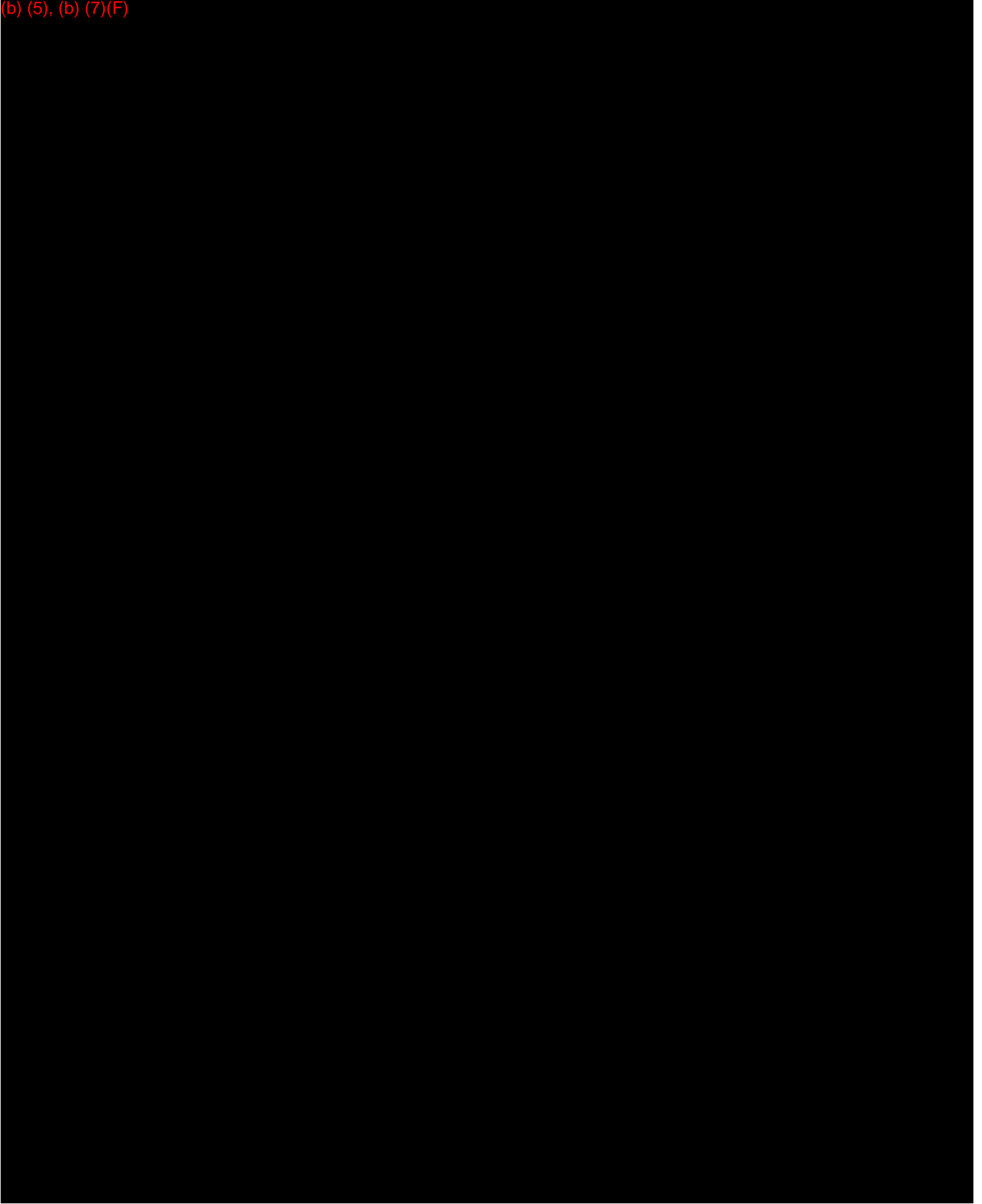
(b) (5), (b) (7)(F)



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Washington, DC

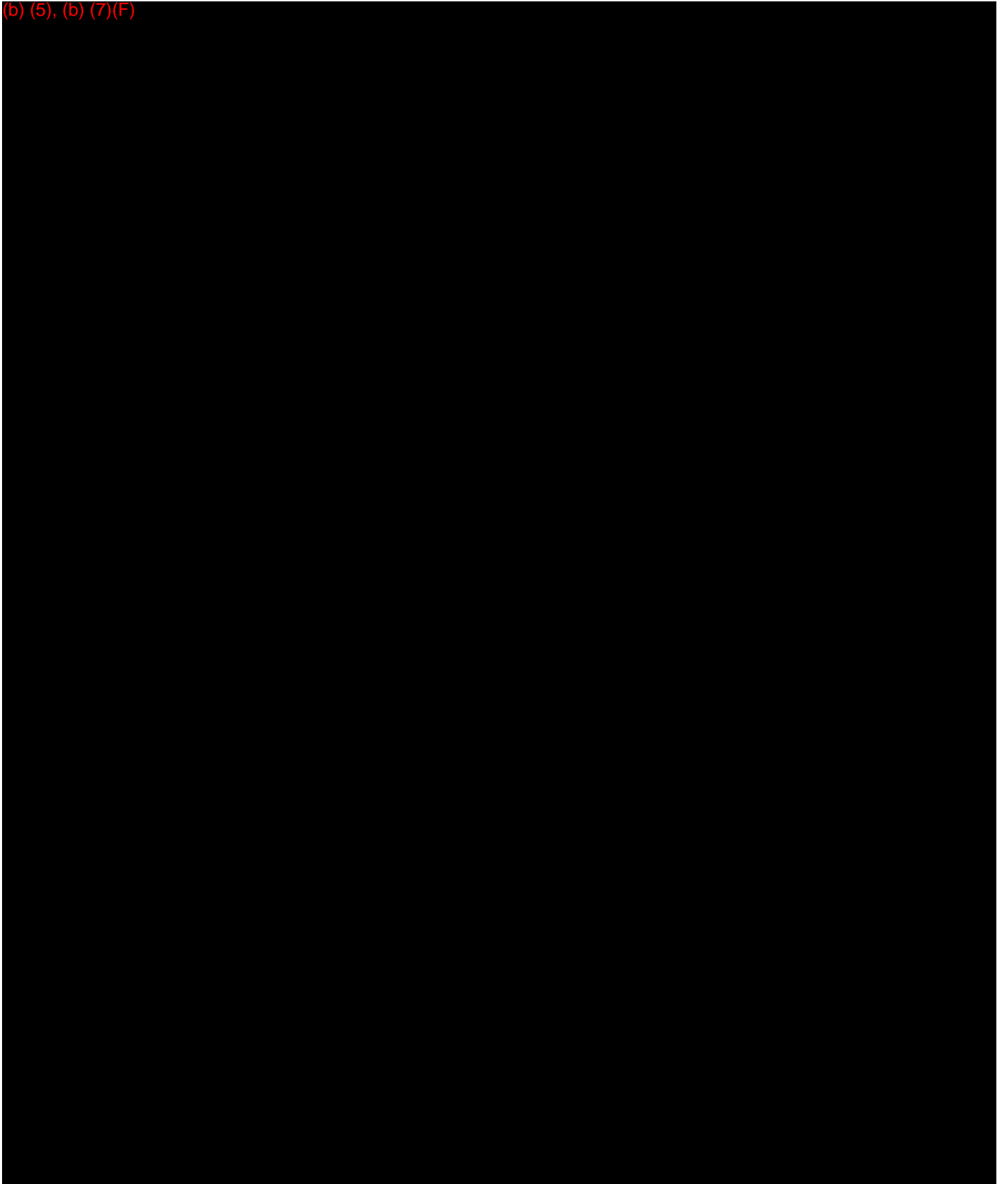
Passenger Elevators PE5 & PE6

(b) (5), (b) (7)(F)

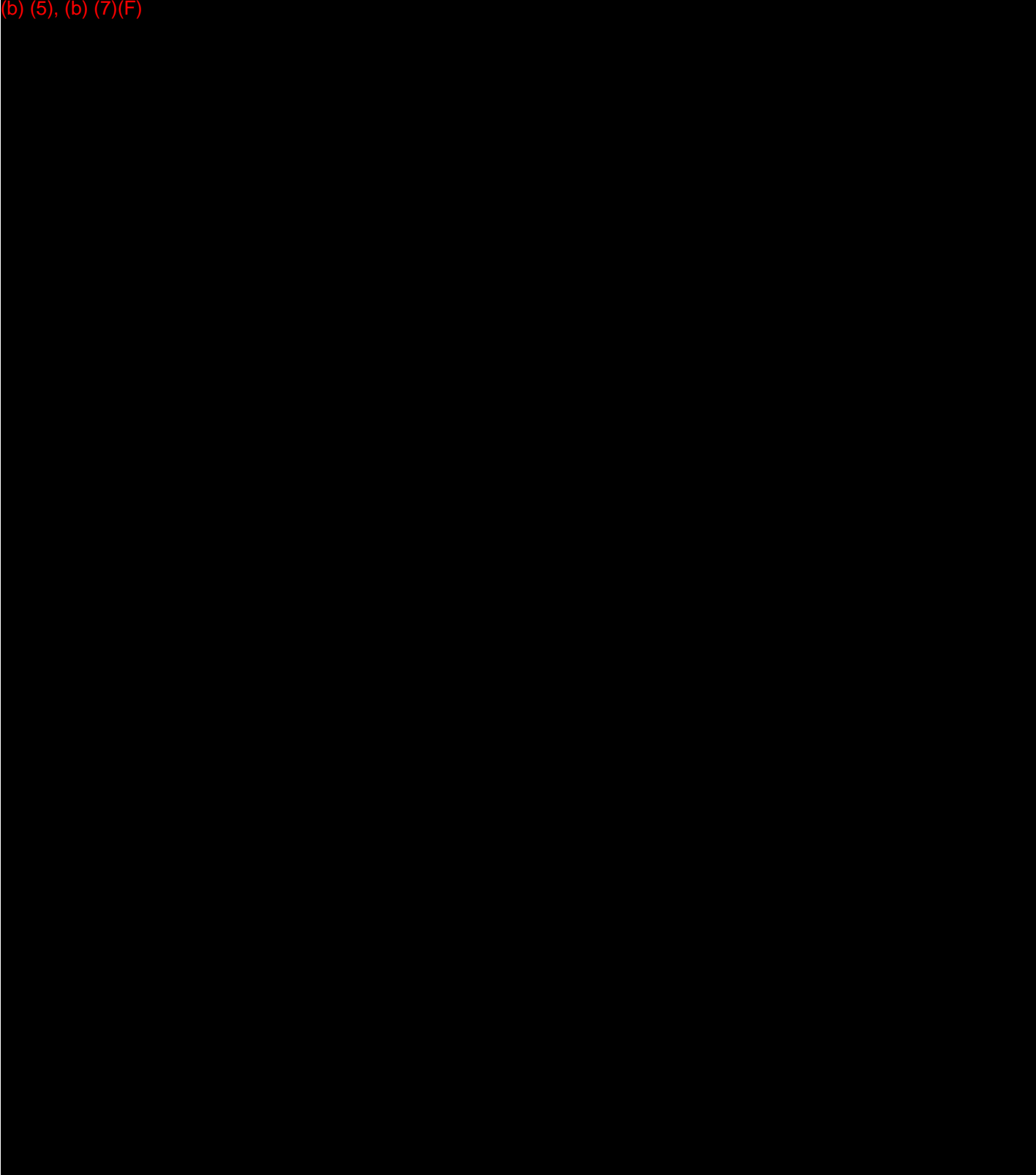


Passenger Elevators PE5 & PE6 (cont.)

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(b) (5), (b) (7)(F)

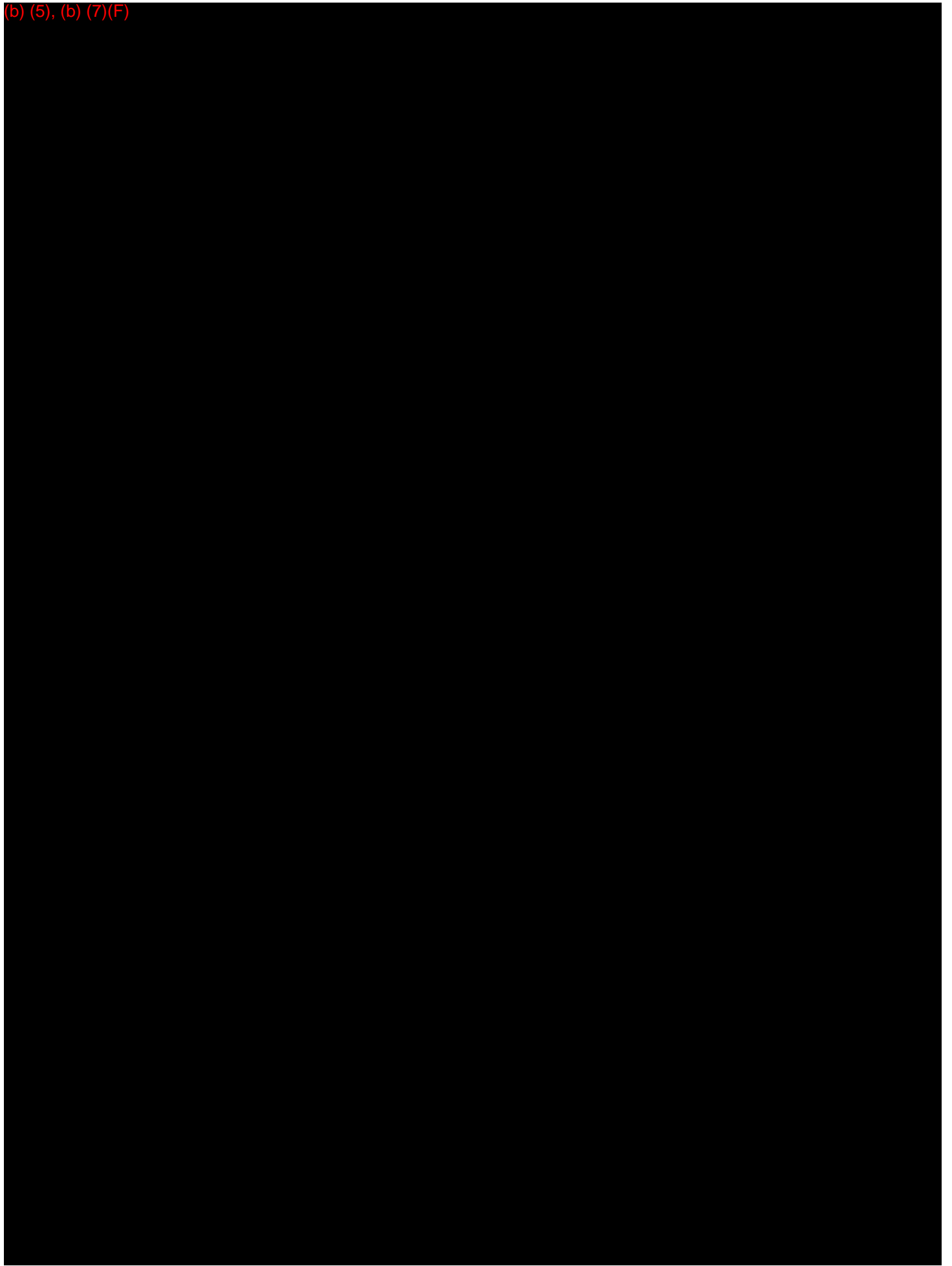


Typical hall station

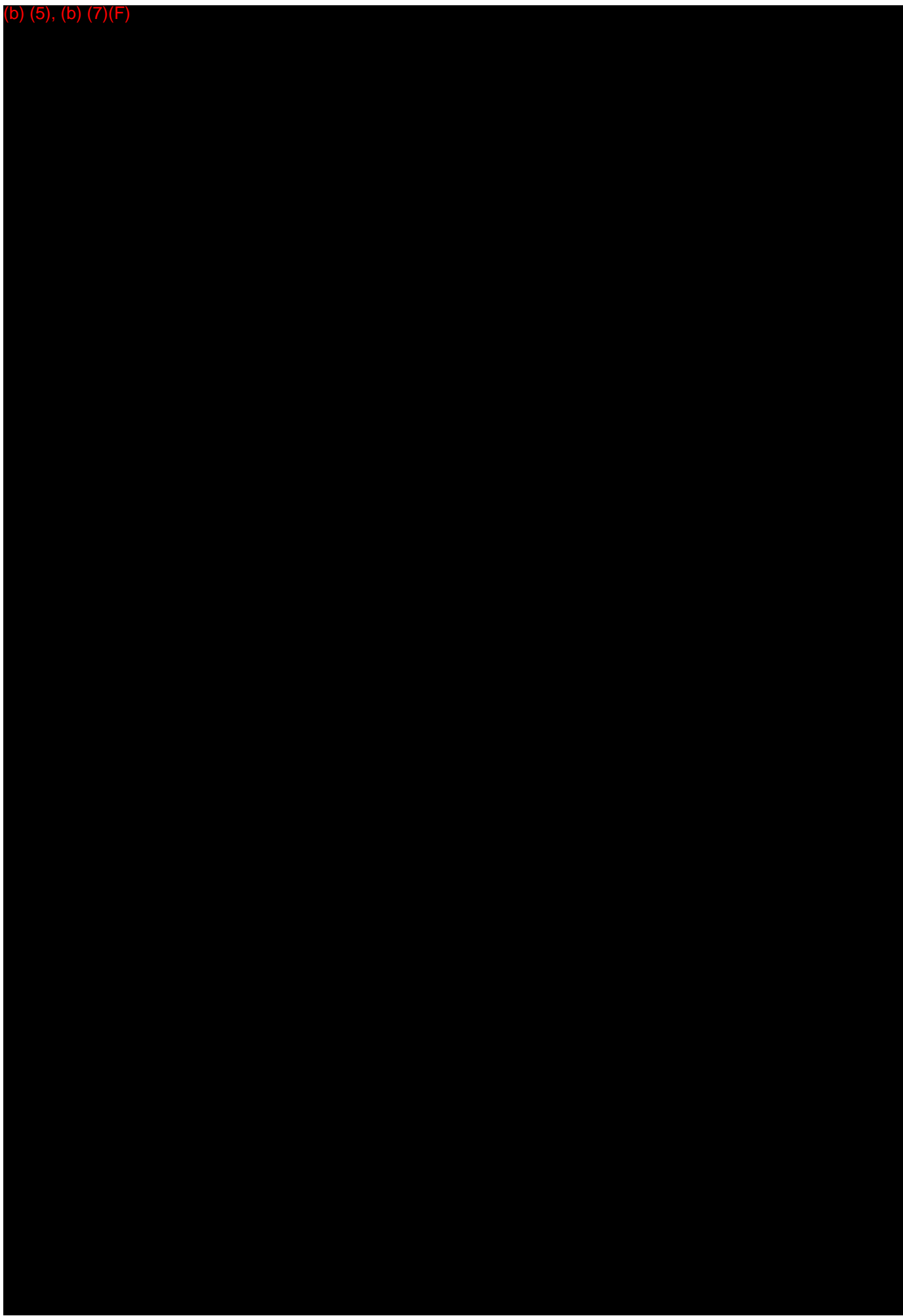
“Life Jacket” piston grabber

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Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

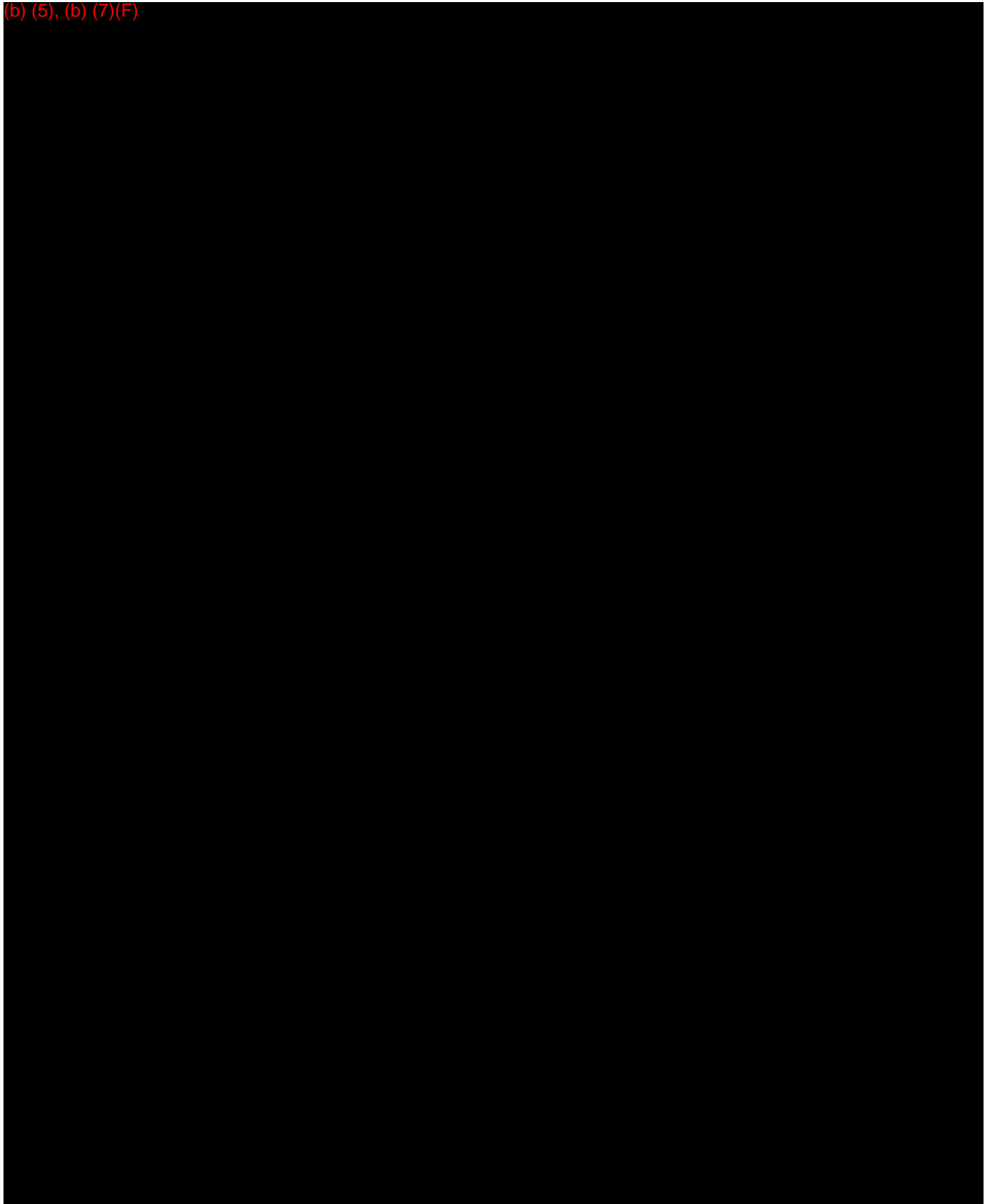
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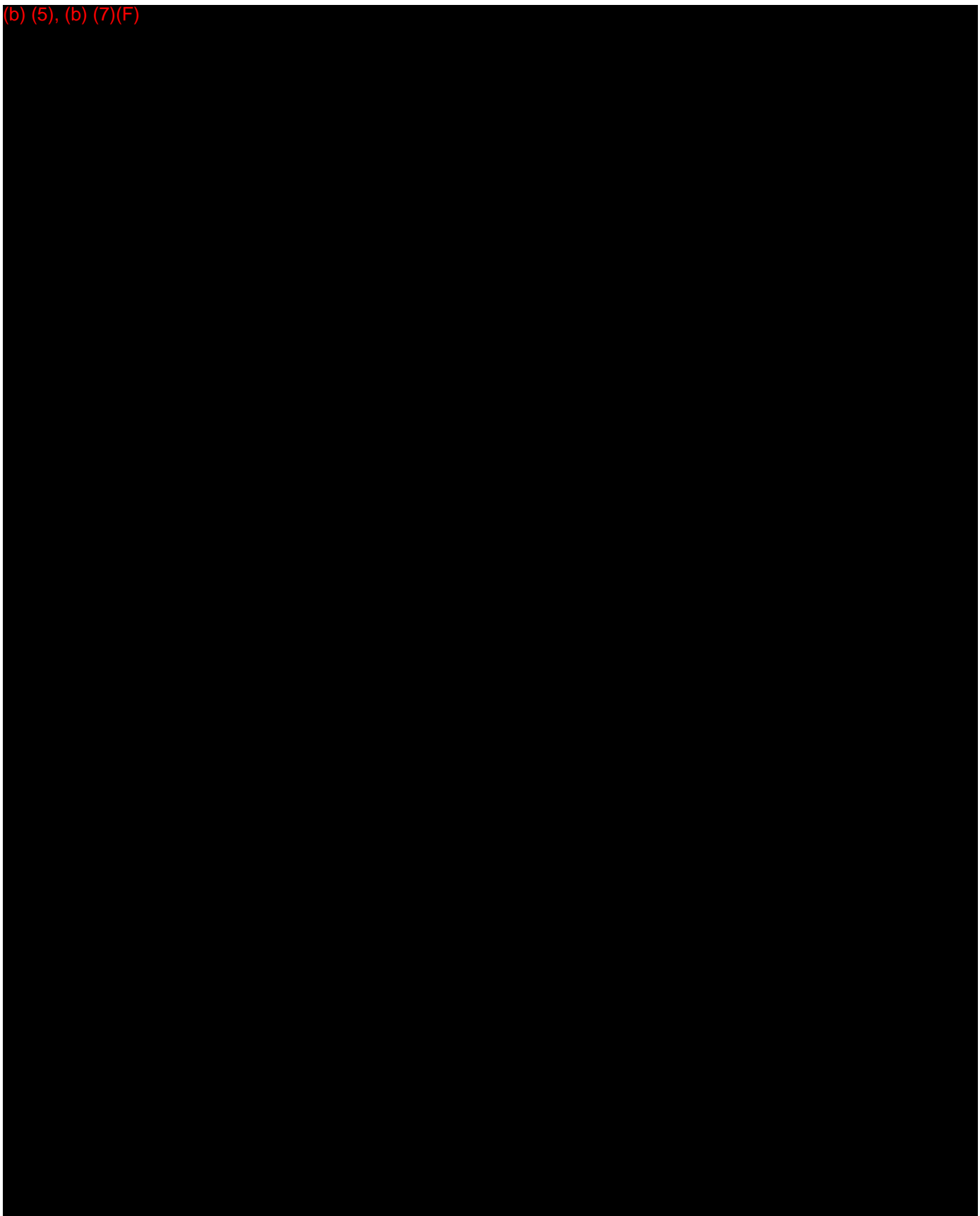


(b) (5), (b) (7)(F)



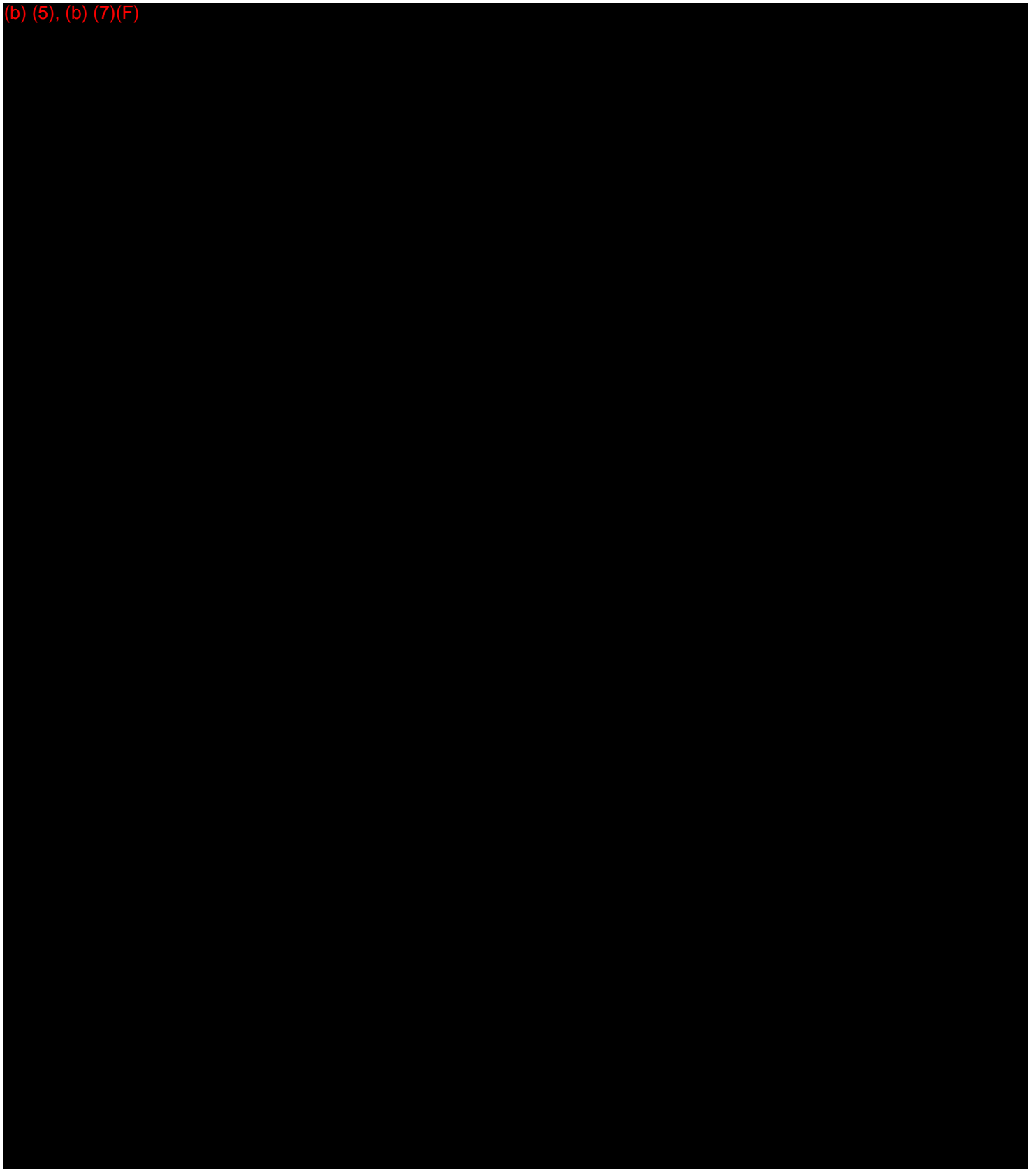
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(b) (5), (b) (7)(F)



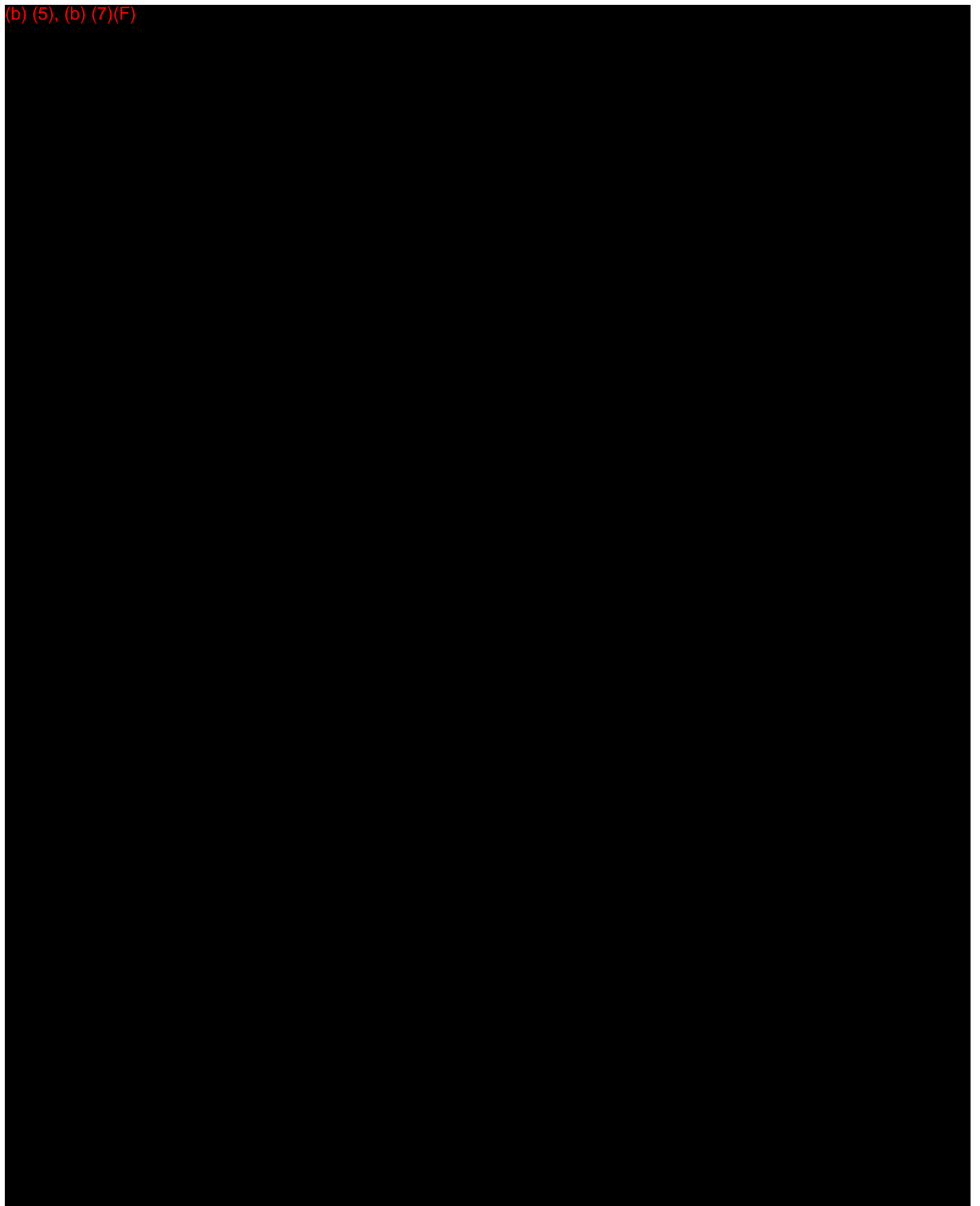
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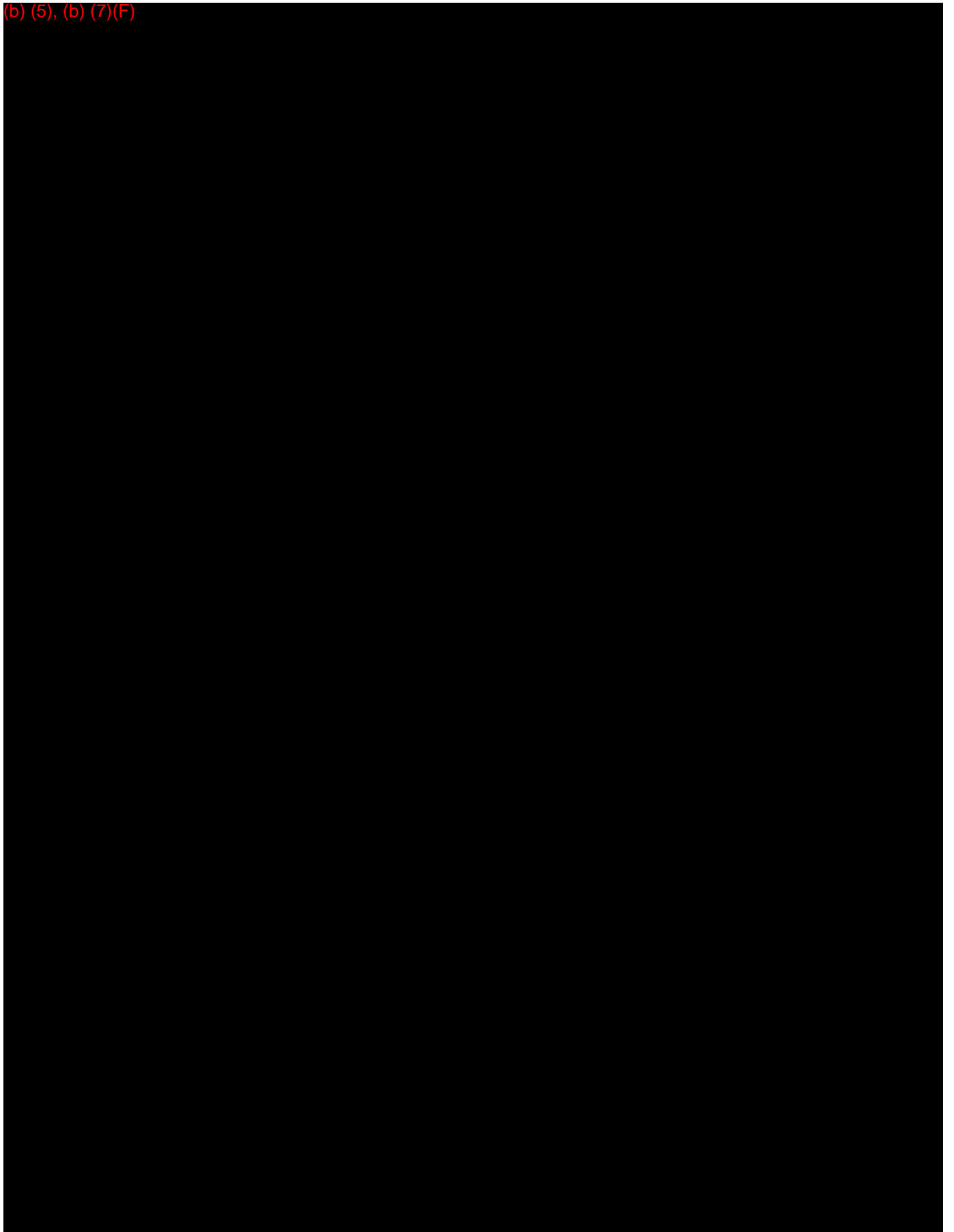


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(b) (5), (b) (7)(F)



(b) (5), (b) (7)(F)



Federal Courts Building DC0094ZZ
Tayloe House DC0112ZZ
Cosmos Club DC0113ZZ
Washington, DC

Markey Courts
DC0094ZZ
Tayloe House DC0112ZZ
Elevator Modernization Schedule

	Year 1												Year 2											
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
FE7																								
PE8 (Tayloe)																								
PE8 (Library)																								
PE5																								
PE6																								
PE1																								
PE2																								

	Year 3											
Month	25	26	27	28	29	30	31	32	33	34	35	36
PE3												
PE4												

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Cosmos Club DC0113ZZ
Washington, DC

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A BU V M
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GENERAL SERVICES ADMINISTRATION
PUBLIC BUILDINGS SERVICE
NATIONAL CAPITAL REGION
7th and D Street SW
Washington, DC 20407

FIELD VERIFY ALL DIMENSIONS

EXAMPLE

SPACE ID

USABLE AREA Sqft

SPACE TYPE

AGENCY BUREAU CODE

ASA NUMBER

ANSI/BOMA CATEGORIES

SPACE TYPES

SPACE CATEGORIES

SPACE TYPES

DATE

TYPE

PERFORMED BY

CONTRACTOR'S

A/E CON. NO.

A/E TASK NO.

CONS. CONTR.

CONS. WORK

PRIME A/E

SUB A/E

CONSTR. CON.

KEY PLAN

GRAPHIC SCALE

BUILDING

NAME

STREET

CITY/ST/ZIP

BUILDING NO.

OTHER

BUILDING NOS.

FACILITY NAME

PROJECT

TITLE

PROJECT DESCRIPTION

PROJECT NO.

GSA PM

SUBMISSION

SUB. DATE

ORIG. SURVEY

DATE

DRAWING

FILE NAME

FLOOR NO.

DRAWN BY

CHECKED BY

DRAWING NO.

DATE DRAFTED:

SHEET SIZE: E

DISCIPLINE

SHEET TYPE

SEQUENCE

(b) (5), (b) (7)(F)

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GENERAL SERVICES ADMINISTRATION PUBLIC BUILDINGS SERVICE NATIONAL CAPITAL REGION 7th and D Street SW Washington, DC 20407																
FIELD VERIFY ALL DIMENSIONS																
SHEET LABEL KEY SPACE CODES LEGEND 0001 OFFICE 500.00 FLOOR COMMON TTD VERTICAL PENETRATION 1007 REB SPECIFIC ATX06979 SPACE CATEGORY GS ASSIGNED 01 BUILDING COMMON UNMARKETABLE	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p style="text-align: center;">EXAMPLE</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>01001 →</p> <p>500.00 →</p> <p>TTD →</p> <p>1007 →</p> <p>ATX06979 →</p> </div> <div style="width: 55%;"> <p>→ SPACE ID</p> <p>→ USABLE AREA S&F ±</p> <p>→ SPACE TYPE</p> <p>→ AGENCY BUREAU CODE</p> <p>→ ASA NUMBER</p> </div> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ANSI/BOMA CATEGORIES OFFICE FLOOR COMMON VERTICAL PENETRATION REB SPECIFIC SPACE CATEGORIES GS ASSIGNED BUILDING COMMON UNMARKETABLE </div> <div style="width: 50%;"> SPACE TYPES CON CONSTRUCTION CRN CIRCULATION — HORIZONTAL CSY CIRCULATION — VERTICAL CST CUSTODIAL TLS TRAILER TTO TOTAL OFFICE </div> </div>															
AUDIT RECORD <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>TYPE</th> <th>PERFORMED BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	DATE	TYPE	PERFORMED BY													
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CONTRACTORS A/E CON. NO. A/E TASK NO. CONS. CONTR. CONS. WORK PRIME A/E SUB A/E CONSTR. CON.																
KEY PLAN <div style="border: 1px solid black; height: 150px; width: 100%;"></div>																
GRAPHIC SCALE <div style="text-align: center;"> <p>1" = 4' 1" = 8' 1" = 16'</p> <p>Custom</p> </div>																
BUILDING NAME STREET CITY/ST./ZIP BUILDING NO. OTHER BUILDING No. FACILITY NAME	TAYLOE HOUSE 717 MADISON PL NW WASHINGTON DC 20005-7700 DD0112 FACILITY CODE: _____ _____ _____															
PROJECT PROJECT TITLE PROJECT DESCRIPTION PROJECT NO. GSA PM SUBMISSION SUB. DATE ORIG. SURVEY DATE																
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		GENERAL SERVICES ADMINISTRATION PUBLIC BUILDINGS SERVICE NATIONAL CAPITAL REGION 7th and D Street SW Washington, DC 20407																
FIELD VERIFY ALL DIMENSIONS																		
SPACE LABEL KEY		EXAMPLE <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> 01001 500.00 TTD 1007 ATX06979 </div> <div> SPACE ID USABLE AREA 54-Ft SPACE TYPE AGENCY BUREAU CODE ASA NUMBER </div> </div>																
SPACE CODES LEGEND		ANSI/BOMA CATEGORIES 00 OFFICE 10 FLOOR COMMON 20 VERTICAL PENETRATION 30 RIS SPECIFIC 40 ASSIGNED 50 BUILDING COMMON 60 UNMARKETABLE	SPACE TYPES CON CONSTRUCTION CIR1 CIRCULATION - HORIZONTAL CIR2 CIRCULATION - VERTICAL MECH MECHANICAL TTD TOTAL OFFICE TTD1 TTD															
LABEL	CONTRACTORS																	
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BUILDING		NAME COSMOS CLUB STREET 717 MADISON PL NW CITY/ST./ZIP WASHINGTON DC 20005-7700 BUILDING NO. DC0113 FACILITY CODE:																
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DRAWING NO.		DISCIPLINE SHEET TYPE SEQUENCE SHEET 1 OF 1																